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RECORDS AND DESCRIPTIONS OF AFRICAN SYRPHIDAE.—IV (DIPTERA)

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In this concluding part of the records the remaining genera of the Eristalinae are covered. They comprise a rather difficult section of the family since several of the genera contain species resembling those placed in other groups, and the generic limits are not clearly drawn.

MALLOTA MEIGEN

I am acquainted with only two African species that belong here, but only in the widest sense. The species closely resemble *Simoides* and many of the specimens of *pallidibasis* Bigot have the marginal cell short petiolate, so that the two genera are easily confused. It is possible that both should be united, insofar as the African species are concerned, under *Simoides*.

TABLE OF SPECIES

1.—Anterior four femora yellowish.....*dasyops* Wiedemann.
Anterior four femora mostly black.....*extrema* Loew.

Mallota dasyops Wiedemann

Eristalis dasyops WIEDEMANN, 1819, Zool. Mag., I, p. 18.
pachymera BEZZI, 1915, Syrph. Ethiopian Reg., p. 99.

Male, Umtali, Southern Rhodesia, September 9, 1927 (W. J. Hall); male, Cape Town, South Africa (J. C. Bridwell).

I have examined the type of this species and compared it with my specimens, thus verifying the above synonymy. The hind femora are more strongly swollen than in the other species.

Mallota aenigma Bezzi

BEZZI, 1912, Ann. Mus. Genova, XLV, p. 434.

Described from the Island of Fernando Po and recorded by Bezzi from Southern Rhodesia. This latter record probably refers to *extrema* Loew.

Mallota extrema Loew

Helophilus extrema LOEW, 1857, Ofvers. Kongl. Vet. Akad. Forh., XIV, p. 380.
M. pallidibasis CURRAN, 1927, Bull. Amer. Mus. Nat. Hist., LVII, p. 65.

I have no additional records of this species but believe that I am able to clear up the identity of the specimens I recorded as *pallidibasis* Bigot in the Congo report. I do not think that *extrema* has been correctly identified since it was described although Bezzi placed it in *Mallota*. It may be readily distinguished from similarly colored species by the presence of a tuft of hair on the clypeus (at the base of the proboscis). The marginal cell is sometimes closed and short petiolate, although generally open.

SENASPIS MACQUART

Bezzi proposed the name *Protylocera* for this genus but the change of name was unnecessary. He emended *Senaspis* Macquart to *Stenaspis*, the name thereby becoming a homonym. In its original form *Senaspis* does not conflict with any other generic name and must be retained.

TABLE OF SPECIES

1.—Posterior femora without a prominent basal tubercle.....2.
Posterior femora with a prominent, basal tubercle on the under surface.....*apophysata* Bezzi.
2.—Abdomen wholly yellowish; scutellum blackened.....*xanthorrhaea* Bezzi.
Abdomen largely black or brown.....3.
3.—Abdomen black with the apical one or two segments orange.....*haemorrhoa* Gerstaecker.
Abdomen differently colored, the apical segment never wholly orange.....4.

4.—Wings deep brown or blackish except the posterior border.....*dibaphus* Walker.
Wings differently colored or the face blackish.....5.
5.—Posterior tibiae chiefly black-haired dorsally.....6.
Posterior tibiae with golden yellow hair dorsally.....*aperta* Bezzi.
6.—Mesonotum pale pollinose.....7.
Mesonotum shining black.....*nigrita* Bigot.
7.—Squamae white or yellowish.....8.
Squamae brown.....*melanthysana* Speiser.
8.—Second abdominal segment shining black.....*elliotti* Austen.
Second abdominal segment mostly pale pollinose.....*aesacus* Walker.

Senaspis nigrita Bigot

Dolichomerus nigrita Bigot, 1859, Ann. Soc. Ent. France, p. 431 (f.).

Male and two females from Sikora, Madagascar.

Senaspis melanthysana Speiser

Protylocera melanthysana Speiser, 1914, Jahrb. ver Nassau, LXVI, p. 122.
Senaspis elliotti Curran, 1927, Bull. Amer. Mus. Nat. Hist., LVII, p. 69.

Male, Bamania, Congo, May 11, 1924 (J. Bequaert).

All the specimens recorded as *elliotti* in my paper on the Belgian Congo Diptera belong here.

Senaspis elliotti Austen

Austen, 1909, Trans. Zool. Soc. London, XIX, p. 90.

Female, Boswenda, Congo, October 22, 1914; female, Mt. Ruwenzori, Congo, April 26, 1914 (J. Bequaert); female, Mulata Mts., Harrar Prov., Abyssinia, October 22, 1925 (B. Brown); female, Kikuya Escarpment, British East Africa (A. Ford); female, Uganda, November 23–27, 1926 (G. L. R. Hancock).

Senaspis aesacus Walker

Helophilus aesacus Walker, 1849, List Dipt. Brit. Mus., III, p. 609.

Male and female, Du River Camp No. 3, Liberia, 1926; female, Lubutu, Congo, January 22, 1915; female Mbaga, Congo, July, 1914; female, Thysville, Congo (J. Bequaert); male and female, Lukulela, Congo, January 1 and 7, 1931 (J. P. Chapin); female, Lourenco Marques (H. A. Junod).

Senaspis haemorrhoa Gerstaecker

Plagiocera haemorrhoa Gerstaecker, 1871, Arch. für Naturg., XXX, p. 363.

Female, Stanleyville, Congo; male, Lubutu, Congo, January 22, 1915; female, Kamaniola, Congo, February 9, 1927; female, Mombasa, April 24, 1927 (J. Bequaert); 5 males, 5 females, Lourenco Marques, September, 1913 to July, 1914 (H. A. Junod); male, 3 females, Ricatla, Delagoa Bay, (Jansen); female, Matetsi, Southern Rhodesia, January 5, 1935 (H. R. H. Stevenson).

Senaspis dibaphus Walker

Xylota dibaphus Walker, 1849, List Dipt. Brit. Mus., III, p. 560.

Male and female, Stanleyville, Congo; two females, Bamania, Congo, July 21, 1924; female, Lokutu, Congo, December 23, 1926; male, Djambi, Congo, Dec. 23, 1913; female, Ngomo, Congo, February 2, 1927; two females, Lubutu, Congo, January 22, 1915 (J. Bequaert); female, Gambari, Uele, Congo; female, Uele River, Congo, (Rodhain); female, Edea, Cameroon (J. A. Reis); two females, Du River Camp No. 3, Liberia (J. Bequaert).

Sarnia Curran

Only one species belonging to this genus is known.

Sarnia smaragdinus Macquart

Eristalis smaragdinus Macquart, 1842, Dipt. Exot., II, pt. 2, p. 56.

Two females, Irebu, Congo, October 16, 1913; two females, Kabare, Congo, August 21 and 31, 1914 (J. Bequaert).

Eristalis Rondani

I place here a few species distinguished by having the eyes hairy and holoptic and the marginal cell petiolate.

Table of Species

1.—Clypeus without a tuft of pile (immediately beneath the anterior oral margin).....2.
Clypeus with a tuft of pile.....*Mallota extrema* Loew.
2.—Posterior tibiae with dense, erect pile above.....*plumipes* Bezzi.
Posterior tibiae without a broad crest of erect pile.....3.

3.—Eyes banded with blackish pile.....
.....*tenax* Linnaeus.
Eyes evenly pilose.....*apis*, new species.

Eristalis tenax Linnaeus

Musca tenax LINNAEUS, 1758, Syst. Nat., X, p. 591.

Seven males from Johannesburg, 1896, 1901 and 1904 (J. P. Cregoe).

Four of these specimens are referable to the variety *campestris* Meigen, having the posterior femora reddish basally.

Eristalis plumipes Bezzi

BEZZI, 1912, Ann. Mus. Genova, XLV, p. 433.

I have seen specimens only from the Belgian Congo.

Eristalis apis, new species

Blackish, with reddish markings and cinereous yellow pollen. Length, 13 to 15.5 mm.

MALE.—Frontal triangle moderately long, very gently convex in profile, cinereous yellow pollinose and yellow pilose, some scattered black hairs in the middle; vertical triangle black, pollinose in front of the ocelli, the pile black. Occiput cinereous to brownish yellow pollinose, the orbits whitish below; pile yellow, becoming white below and on the cheeks. Cheeks pale in ground color. Face usually brownish, rarely reddish, the tubercle and upper portion always dark; pollen cinereous or yellowish cinereous, the tubercle shining or at most very thinly pollinose; the cheeks shining in front; face rather deeply concave above, the tubercle large, broad but not very high. Antennae obscure reddish, the third segment brown, oval, the apex almost evenly rounded; arista bare, mostly reddish. Eyes clothed with short, thick brown pile that becomes yellowish below, touching for a moderately long distance.

Thorax blackish, cinereous yellow pollinose, the dorsum darker behind the suture; humeri, posterior calli, scutellum and parts of the pleura reddish. Pile short and abundant, brassy yellow dorsally, yellow to pale yellow on the pleura. Scutellum yellow, with short yellow pile, usually an incomplete band of appressed black hairs basally.

Coxae, trochanters and the very broad bases of all the femora reddish or reddish yellow, the femora and tibiae black or brown. The anterior and middle femora may be black or brown on the apical half or more, or wholly pale above, leaving the lower apical half brownish, or rarely they are almost all reddish; the tarsi are usually all reddish but the posterior pair may be brownish red; posterior femora rather strongly swollen, the basal third to fourth pale, the pile yellow above and basally, black on the apex, sides and under surface; tibiae black pilose, the basal fifth with pale yellowish pile above, the under surface with rather long, thick, black pile, the dorsal edge with short but conspicuous pile on the subapical half, the anterior legs with yellowish to almost whitish pile, the femora mostly black haired ventrally, the tibiae sometimes with some black pile apically.

Wings cinereous hyaline or with yellow tinge. Squamae obscure yellowish, sometimes with distinct brown tinge, the fringe and halteres yellow.

First abdominal segment yellow or reddish yellow; the second reddish with a narrow, incomplete basal fascia and a broad, preapical fascia that expands medianly, black; third black with a basal fascia that may be entire or broadly interrupted reddish, this band strongly widening laterally; fourth segment blackish, the apices of the third and fourth reddish. The abdomen is mostly subopaque or at most slightly shining. Pile short, black dorsally, yellow on the base and lateral margins. Venter black, the incisures broadly pale basally, the pile pale yellow. Genitalia blackish, black-haired.

FEMALE.—Front rather thickly pale pollinose, an area above the antennae, and the vertex bare; usually a broad band of brown pollen in front of the ocelli; pile yellow, black on the upper third, the middle with scattered black hairs that become more numerous below. Pile of the eyes mostly whitish. Fourth abdominal segment often with basal reddish band. Hind legs with more extensive pale pile than in the male.

TYPES.—Holotype, male, and allotype, female, Stanleyville, Congo, March, 1915 (Lang and Chapin). Paratypes: three males and thirty-one females, Stanleyville, March and April; one female, Lubutu, Congo, January 21, 1915 (J. Bequaert).

LATHYROPHTHALMUS MIK

The species placed in this genus have the eyes more less hairy and bearing numerous brown spots.

TABLE OF SPECIES

1.—Abdomen wholly aeneous; face without evident lateral black stripes; mesonotum usually scarcely vittate.....2.
Abdomen largely pale or with one or more pale pollinose fasciae.....3.
2.—Facial tubercle large; anterior femora almost wholly black pilose.....
.....*nigricans* Wiedemann.
Facial tubercle small; anterior femora almost all pale pilose.....*aeneus* Scopoli.
3.—Face strongly produced downward, subconical; antennal tubercle very prominent; third antennal segment black, sometimes reddish below; eyes of males separated or touching for only a short distance.....4.
Face obtuse below, not strongly produced; antennal tubercle but little prominent; third antennal segment reddish, sometimes narrowly blackish above; eyes al-

ways contiguous, usually broadly so, and always pilose, at least above in both sexes; mesonotum usually conspicuously vittate.....14.

4.—Posterior femora with strong basal tubercle posteriorly; eyes bare; posterior tarsi yellow; femora wholly black..... Species (female).

Posterior femora without such tubercle..5.

5.—Eyes wholly bare; third antennal segment rounded, wholly black; posterior tarsi black.....6.

Eyes pilose above; third antennal segment elongate, reddish below; posterior tarsi yellowish, with dark apices.....8.

6.—Eyes of male separated; fourth ventral abdominal segment of male with long appendage, the segment above with a single, whitish pollinose fascia..... *modestus* Wiedemann.

Eyes of male contiguous; fourth sternite simple.....7.

7.—Posterior femora broadly yellow basally; mesonotum with broad, dark, presutural fascia; fourth abdominal segment with three transverse whitish fasciae; second abdominal segment of female with complete yellowish fascia..... *myiatropinus* Speiser.

Posterior femora wholly black; mesonotum with indistinct longitudinal black vittae; fourth abdominal segment of male with only two whitish fasciae; second segment of female with broadly interrupted yellowish fascia..... *gymnops* Bezzi.

8.—Face with only the tubercle shining black.9.

Face with lateral black stripes present..10.

9.—Mesonotum evenly ochraceous pollinose..... *mirus*, new species.

Mesonotum aeneous, whitish vittate..... *haplops* Wiedemann.

10.—Face with five shining black vittae..... *lineifacies*, new species.

Face with three shining black vittae, the outer ones sometimes very narrow...11.

11.—Abdomen wholly black in ground color..... *pexalis*, new species.

Abdomen with yellowish spots or bands.12.

12.—Frontal triangle of the male, and front of the female for most of its length, pale pollinose..... *euzonus* Loew.

Frontal triangle of male shining black; front of female with a narrow, pale pollinose band, or if with a broad one, the hair is mostly black.....13.

13.—Femora all black-haired..*melanops* Karsch.

Posterior femora yellow pilose except before the apex of the ventral surface..... *andersoni* Bezzi.

14.—Face with three black vertical stripes; stigma with only a single brown spot; scutellum wholly pale-haired.....15.

Face without lateral black stripes, the tubercle usually yellow, rarely brownish; two brown stigmal spots; scutellum partly black-haired.....16.

15.—Tarsi mostly black; smaller species..... *tabanoides* Jaennicke.

Tarsi wholly reddish; large species..... *eclara*, new species.

16.—Second abdominal segment without a black anterior border, or if one is present it is linear and incomplete, the pale fascia on the second segment always entire....17.

Second abdominal segment with a broad, basal black fascia which is usually connected in the middle with the black posterior border.....21.

17.—Abdomen with broad black fasciae which are broadly shining behind; posterior tarsi yellow or but little darkened apically.....18.

Abdomen yellow with narrow opaque black fasciae on apices of segments two to four; all the femora broadly yellow basally..... *vicarians* Bezzi.

18.—Mesonotum with a pair of slender yellowish vittae on the posterior half, dull black except laterally, with four bronze-black partly brownish pollinose vittae..... *monozonus* Hervé-Bazin.

Mesonotum strongly vittate with grayish or yellowish and black.....19.

19.—Third and fourth abdominal segments wholly black; posterior femora wholly yellow..... *xanthopus* Bezzi.

Third and fourth abdominal segments with yellow fasciae; posterior femora black with broad yellow bases.....20.

20.—Squamae pale with broad brown border; posterior femora broadly yellow basally; black thoracic vittae not broader than the gray ones, the median stripe divided..... *trizonatus* Bigot.

Squamae blackish; posterior femora narrowly yellow basally; black thoracic vittae broad, the lateral ones twice as broad as the gray ones... *flaveolus* Bigot.

21.—Mesonotum conspicuously shining posteriorly; face black in ground color..... *dissimilis* Adams.

Mesonotum wholly opaque.....22.

22.—Anterior four femora almost wholly reddish, the posterior pair reddish on the basal half..... *madagascariensis* Hervé-Bazin.

Anterior femora black with pale ends, the posterior pair practically all black...23.

23.—Scutellum reddish..... *dulcis* Karsch.

Scutellum black on basal half..... *dubiosa* Curran.

Lathyrophthalmus dissimilis Adams

Eristalis dissimilis ADAMS, 1905, Kansas Univ. Sci. Bull., III, p. 163.

Three males and two females, Basutoland (Janson); male and female, Johannesburg (J. P. Cregoe).

Lathryophthalmus vicarians Bezzi

BEZZI, 1915, Syrph. Ethiopian Reg., p. 86.

Male and female, Faradje, Congo, November, 1912 (Lang and Chapin).

Lathyrophthalmus trizonatus Bigot

Eristalis trizonata BIGOT, 1858, in Thompson, Archiv. Entom., II, p. 364.

Female, Stanleyville, Congo (J. Bequaert).

Lathyrophthalmus flaveolus Bigot

Eristalomyia flaveola BIGOT, 1880, Ann. Soc. Ent. France, p. 220.

Female, Lukolela, Congo, November 19, 1930 (J. P. Chapin); male, Okondo, Uele, Congo (Rodhain); male, Lubutu, Congo, January 21, 1915; male, Walikale, Congo, January 7, 1915; male and female, Du River Camp No. 3, Liberia; male and female, Banga, Liberia, October, 1926; female, Gbanga, Liberia, September, 1926 (J. Bequaert); male, Lourenco Marques, April–July, 1914 (H. A. Junod); seven males, Ukaika-Mawambi, 1911 (Grauer).

Lathyrophthalmus myiatropinus Speiser

SPEISER, 1910, Kil.-Meru Exp., X, p. 125.

Male, Kogona, Tanganyika Territory, January 24, 1927 (J. Bequaert).

Lathyrophthalmus andersoni Bezzi

L. euzonus andersoni BEZZI, 1915, Syrph. Ethiopian Reg., p. 82.

Male, Walikale, Congo; male, Burunga, Congo (J. Bequaert).

Lathyrophthalmus tabanoides Jaennicke

Eristalis tabanoides Jaennicke, 1867, Abhand. Senckenberg. Naturf. Ges., VI, p. 402 (f.).

Lathyrophthalmus quinquelineatus of authors, not Fabricius.

Male, Kasonsera, Congo, July 17, 1914 and female, Kabare, Congo, August 21, 1914 (J. Bequaert); two females, Johannesburg, 1899 (J. P. Cregoe).

The species described as *Eristalis quinquelineatus* by Fabricius belongs to the genus *Eristalodes* and is identical with the species later described as *pleurivittatus* by Macquart. The type of *quinquelineatus* is in the British Museum and Miss Daphne Aubertin has very kindly examined the specimen in regard to several characters, so that there can be no doubt as to its identity. Fortunately there is a name available for the species identified by Bezzi and others as *quinquelineatus*.

Lathyrophthalmus dulcis Karsch

Eristalis dulcis KARSCH, 1887, Ent. Nachr., p. 102.

Female, Zambi, Congo, June 30, 1915; female, Bogoro, Congo, July, 1914 (J. Bequaert).

Lathyrophthalmus mirus, new species

Scutellum reddish; mesonotum evenly ochraceous pollinose. Length, 11 mm.

MALE.—Head black in ground color, cinereous pollinose, an incomplete median facial stripe, the vertical triangle and cheeks shining black, the antennal prominence also shining above. Pile tawny above, whitish on lower occiput, face, cheeks and front, black on the vertical triangle, yellow on the eyes. Eyes touching for less than the length of the ocellar triangle, the brown spots small and isolated. Face gently concave above, the tubercle long and moderately prominent below, the face short conical below. Antennae brown; arista reddish.

Thorax evenly ochraceous pollinose above and clothed with rather short, thick tawny pile; pleura cinereous pollinose and white pilose. Scutellum reddish, with tawny pile.

Legs black or brown, the apices of the femora and basal half of the anterior four tibiae, yellow; tips of the hind femora, bases of their tibiae and the basal two or three tarsal segments reddish. Pile yellow, black only on the ventral surface of the hind tibiae.

Wings hyaline, sometimes with strong luteous tinge on basal two-thirds in front. Squamae and halteres yellow.

First abdominal segment blackish, the sides yellowish, the dorsum densely cinereous yellow pollinose. Second segment reddish, opaque with an incomplete, laterally tapering dark apical fascia that is more or less shining. Third segment reddish yellow, with almost the apical half black except for a short, apical fascia of yellowish pollen in the middle, the base with yellowish or cinereous pollen except on the sides and anterior angles. Fourth segment black, densely cinereous yellow pollinose, a rather narrow, gently arched shining black fascia behind the middle, the base narrowly shining toward the sides. Genitalia shining black. Pile tawny dorsally, yellow laterally, apically and on the venter. Venter reddish, the apical sternite black, densely brownish yellow pollinose except basally.

TYPES.—Holotype, male, Basutoland (Janson). Paratype, male, Lake Chrissie, S. E. Africa (Janson).

Lathyrophthalmus lineifacies, new species

Black; mesonotum not vittate; scutellum dull reddish; face with five shining black vittae. Length, 13.5 mm.

FEMALE.—Head black in ground color, cinereous pollinose, the frontal pollen dull black on more than the upper half, bordered anteriorly by an anteriorly arched band of gray, the sides in front of the gray band very thinly pollinose, the anterior part of the front shining. Frontal pile black, with yellow hairs intermixed across the middle and on the lower orbits. Ocellar triangle wider than long. Occiput with yellow pile above, the lower two-thirds and cheeks white pilose. Cheeks mostly shining black, a triangle of pollen anteriorly. Facial pollen rather brownish yellow toward the middle and above, the median and lateral black vittae broad, the intervening black vittae much narrower and united below with the lateral ones. Antennae brown, the third segment rather broadly reddish below; arista reddish. Facial tubercle long and moderately prominent. Eyes with moderately long black hair.

Thorax black, the humeri brownish red; pleura and sides of mesonotum cinereous pollinose and very pale yellowish to almost white pilose. Mesonotum with yellowish brown pollen on about the median third which becomes more yellowish before the scutellum, the suture with brownish yellow pollen; pile brassy yellow, moderately long, with numerous black hairs intermixed between the bases of the wings. Scutellum reddish, with long pale pile, across the middle with a narrow band of black hair.

Coxae black, with cinereous pollen; femora shining black; tibiae brownish red, the basal third of the anterior four and the basal fifth of the hind pair yellow; tarsi reddish brown, the middle pair reddish basally, the hind pair dark reddish. Pile yellow, the posterior femora with coarse black hair ventrally on the apical third, their tibiae black haired beyond the basal third.

Wings hyaline, with slight brown tinge, the veins mostly brown. Squamae whitish, with yellow border. Halteres yellow.

Abdomen slightly shining black, the first segment cinereous pollinose, narrowly reddish laterally. Second segment with indications of a reddish brown fascia occupying about the basal half in the middle and basal two-thirds laterally. Third segment with a weak grayish basal fascia occupying the basal third but not nearly reaching the lateral margins, the fourth with trace of a similar but narrower basal fascia. Pile pale yellowish, the second segment with a few black hairs apically in the middle, the third with a small median triangle of black on the apical half, the fourth with a triangle extending almost to the base, the fifth wholly black haired. Venter blackish, with long, sparse pale yellow pile.

HOLOTYPE.—Female, Mukule, Congo, 1800 m., November, 1914 (J. Bequaert).

Lathyrophthalmus pexalis, new species

Rather similar to *lineifacies* but the face lacks the sublateral black vittae. Length 13 mm.

FEMALE.—Head aeneous, thickly cinereous yellow pollinose, the front brown pollinose with the vertex and supra-antennal area shining. Front moderately wide, black pilose, the sides below with yellow pile, across the middle with black and yellow pile intermixed. Posterior orbits rather whitish pollinose on the lower half; occipital pile pale yellow, becoming reddish yellow above. Cheeks pollinose, separated from the face by a broad black stripe. Face rather strongly produced, the tubercle long and low, the median black stripe tapering above, rather narrowly separated from the linear, shining stripes; pile yellow. Antennae black, the third segment reddish below; arista reddish.

Thorax black, mostly pale pollinose. Mesonotum with yellowish brown pollen that is very thin on a broad band behind the suture so that the aeneous ground color shows through, the prescutellar pollen paler than that in front. In some lights there are faint traces of three pale vittae. Pile reddish yellow, freely intermixed with black on the dark fascia. Pleura with yellowish pile. Scutellum dull reddish yellow with the base broadly black and with a transverse band of black pile across the middle.

Coxae and femora black, the former pale pollinose; tips of the femora, basal fourth of the anterior four and sixth of the posterior tibiae, yellow; tarsi reddish, becoming brown on the apical two or three segments; tibiae brownish. Pile yellowish, mostly black on the posterior tibiae.

Wings clear, tinged with brown, the veins brown, reddish basally. Squamae pale yellowish. Halteres yellow.

Abdomen blackish, the second and third segments each with a broad basal band of cinereous pollen that does not nearly reach the lateral margins. Pile obscure yellowish, the third segment with some black hair in the middle before the apex, the fourth with a short, medianly dilated preapical band of black, the fifth wholly black haired. Venter shining black, with slightly dulled preapical fasciae, the pile sparse, long, obscure yellowish.

HOLOTYPE.—Female, Addis Abbaba, Abyssinia, August 30, 1920 (Barnum Brown).

Lathyrophthalmus eclara, new species

A large robust species, the eyes bare, the legs reddish and yellow. Length, 15.5 mm.

MALE.—Head black in ground color, a high, brownish yellow arch above each antenna. Frontal triangle small, black pilose, the sides very broadly brownish pollinose. Vertical triangle small, black pilose, brown pollinose in front of the ocelli. Occiput brownish pollinose, the orbits whitish on more than the lower half, the pile yellowish. Cheeks narrow, mostly shining. Face not produced downward, brownish yellow pollinose and yellow pilose, the tubercle large

and shining black, not much longer than wide. Antennae reddish, the third segment brown on the upper half; arista yellowish, with broadly brown apex. Eyes contiguous for a very long space, with an area of enlarged facets above, bare, the brown spots almost all isolated.

Thorax black, the humeri reddish. Mesonotum brownish ochraceous pollinose, with a broad, incomplete darker band behind the suture, the pile pale tawny. Pleura cinereous pollinose and whitish pilose. Scutellum reddish, with quite short black hair on the disc and longer, yellowish hair on the border.

Legs brownish red or dark reddish, the basal third of the anterior four tibiae and the base of the hind pair yellow. Pile black, yellow on the basal third of the front tibiae, on the middle legs except on the apical half of the femora posteriorly and on somewhat more than the basal half of the hind femora.

Wings hyaline, the veins reddish yellow. Squamae and halteres yellow.

First abdominal segment reddish yellow; second segment reddish with the apical fifth brown except at the sides; third reddish with the apical two-fifths brown, the fourth black with the base very narrowly reddish. Pile yellow, black on the dark fasciae on the second and third segments. Venter yellow, black apically, the pile wholly yellowish.

HOLOTYPE.—Male, Lourenco Marques, 1914 (H. A. Junod).

ERISTALODES MIK

The representatives of this genus are separated from *Lathyrophthalmus* Mik by the presence of bands, instead of dark spots, on the eyes.

TABLE OF SPECIES

1.—Scutellum partly or wholly reddish or yellowish....2.
Scutellum wholly black..*seychellarum* Bezzi.
2.—Antennae mostly yellow, the third segment narrowly blackish above....3.
Antennae black, the third segment broadly reddish below....7.
3.—Facial tubercle yellowish and rounded....*barclayi* Bezzi.
Facial tubercle black or elongate....4.
4.—Males....5.
Females....6.
5.—Facets on the upper third of the eyes greatly enlarged....*quinquelineatus* Fabricius.
Facets but little enlarged....*surcoufi* Hervé-Bazin.
6.—The yellow fascia on the second abdominal segment extends over the lateral margins....*quinquelineatus* Fabricius.
The yellow fascia is separated from the lateral margins....*surcoufi* Hervé-Bazin.
7.—Eyes with five or more dark bands....8.
Eyes with only three dark bands....*fuscicornis* Karsch.
8.—Front tarsi wholly reddish; front of female with broad, opaque brown fascia above the middle....*mendax* Curran.
All the tarsi with the apical two segments blackish; front of female without brown fascia....*taeniops* Wiedemann.

Eristalodes fuscicornis Karsch

Eristalis fuscicornis KARSCH, 1887, Ent. Nachr., XIII, p. 100.
Eristalodes marshalli CURRAN, 1927, Bull. Amer. Mus. Nat. Hist., LVII, p. 74.

Female, Boma, Congo, June 9, 1915 (J. Bequaert); three females, Sudan (H. H. King).

Eristalodes quinquelineatus Fabricius

Syrphus quinquelineatus FABRICIUS, 1781, Spec. Ins., II, p. 425.
Syrphus quinquelineatus FABRICIUS, 1787, Mantissa Ins., II, p. 336.
Musca quinquelineatus GMELIN, 1790, Syst. Nat., V, p. 2870.
Syrphus quinquelineatus FABRICIUS, 1794 Ent. Syst., IV, p. 290.
Eristalis quinquelineatus FABRICIUS, 1805, Syst. Antl., p. 239.
Eristalis quinquelineatus WIEDEMANN, 1830, Ausser. Zweifl., II, p. 185.
Eristalis plurivittata MACQUART, 1855, Dipt. Exot., Suppl. V, p. 86.
Eristalis plurivittata BIGOT, 1858, Thoms. Arch. Ent., II, p. 363.
Eristalis macrops KARSCH, 1887, Ent. Nachr., XIII, p. 100.
Eristalodes plurivittatus BEZZI, 1915, Syrph. Ethiopian Reg., p. 88.
Eristalodes plurivittatus CURRAN, 1928, Bull. Amer. Mus. Nat. Hist., LVII, p. 74.

I am indebted to Miss Daphne Aubertin for notes on the type of *Syrphus quinquelineatus* Fabricius, in the British Museum of Natural History. Due to her kindness I have been able to definitely identify specimens of this species and to work out the above synonymy. Most of the other references to this species in the "Kertesz Catalogue" refer to a species of *Lathyrophthalmus*, but the correct synonymy in many cases cannot be determined without an examination of the specimens upon which the records are based. Bezzi's misidentification of this species has proved most unfortunate especially as he has been followed by others, and the catalogue has perpetuated the error. I have before me the following specimens belonging to this species.

Two males and four females, Stanleyville,

March, 1915; female, Stanleyville, April 27, 1915 (Lang and Chapin); female, Lisala, Congo, December 26, 1926 (J. Bequaert); male, Okokemeji, Ibidan, Nigeria; four males, Ricatla, Delagoa Bay (Janson); male and three females, Lourenco Marques, January–March, 1914 (H. A. Junod).

Eristalodes surcoufi Hervé-Bazin

Hervé-Bazin, 1914, Bull. Soc. Ent. France, p. 115.

Female, Ukaturaka, Congo, December 24, 1926; 2 females, Gbanga, Liberia, September, 1926; female, Du River Camp No. 3, Liberia; female, Kakatown, Liberia, August 18, 1926; female, Memeh Town, Liberia, August 29, 1926 (J. Bequaert); female, Uele River, Congo (Rodhain); three females, Ricatla, Delagoa Bay (Janson).

Eristalodes taeniops Wiedemann

Eristalis taeniops Wiedemann, 1818, Zool. Mag., I, p. 42.

Two females, Lubutu, Congo, January 1 and February 6, 1915; female, Betala, Liberia, October 13, 1926; five females, Paiata, Liberia, October, 1926 (J. Bequaert); three females, Johannesburg, 1899 (J. P. Cregoe).

Dolichomerus Macquart

In my report on the Diptera of the American Museum Congo Expedition I included the species belonging to this genus under *Megaspis*, but later, in 1927, recognized the genus as distinct.

Table of Species

1.—Face and cheeks reddish....4.
Head wholly black....2.
2.—Male with whitish patches or with sparse tomentum on the abdomen; front of female without a yellow crossband....3.
Male with four large patches of golden tomentum on the apical abdominal segments; front of female with yellow pubescent band across the middle.... *aurigera* Bezzi.
3.—Legs mostly reddish; posterior femora with a strong triangular production apically (Asia).... *crassus* Fabricius.
Legs black; posterior femora with only a strong swelling.... *bullatus* Loew.
4.—Scutellum orange....5.
Scutellum blackish or brown. *serena* Curran.
5.—Legs partly black....6.
Legs wholly reddish.... *neavei* Bezzi.
6.—Abdomen reddish except on the sides and apex.... *kroeberi* Bezzi.
Abdomen wholly black.... *kroeberi abdominalis* Curran.

Dolichomerus aurigera Bezzi

Bezzi, 1915, Syrph. Ethiopian Reg., p. 68 (f.).

Female, Uele River, Congo (Rodhain).

Dolichomerus bullatus Loew

Loew, 1857, Ofvers. Kongl. Vet. Akad. Forhandl., XIV, p. 381.

Female, Stanleyville, Congo, prey of bembex; female, Lesse, Congo, August 21, 1914 (J. Bequaert).

Dolichomerus kroeberi abdominalis Curran

Curran, 1927, Rev. Zool. Afr., XV, p. 364.

Female, Stanleyville, Congo, prey of bembex (J. Bequaert).

Phytomia Guerin

Robust species, with bare, holoptic eyes in the male. A few of the species resemble honey bees but most of them are shorter and more compact.

Table of Species

1.—Abdomen long and tapering, usually yellowish or reddish fasciate; wings hyaline; (superficially like *Eristalis tenax* L.)..2.
Abdomen shorter, more compact; at least some of the crossveins clouded or the abdomen wholly black in ground color..8.
2.—Front clothed with short, even hairs.... *incisa* Wiedemann.
Front clothed with long hairs which become shorter toward the face in the females....3.
3.—Face yellow laterally....4.
Face wholly blackish in ground color....5.
4.—Posterior femora wholly black.... *Simoides villipes* Loew.
Posterior femora broadly reddish basally. *Simoides villipes femoralis* Bezzi.
5.—Second abdominal segment normal in shape....6.
Second abdominal segment of peculiar shape.... *ephippium* Bezzi.
6.—Abdomen with yellow fasciae basally.... *fronto* Loew.
Abdomen wholly blackish in ground color....7.
7.—Eyes of male broadly separated.... *Simoides villipes* Loew.
Eyes of male contiguous on the front.... *fronto melas* Bezzi.

8.—Abdomen with well developed, rounded bullae....9.
Abdomen without distinct bullae....14.
9.—Arista bare; bullae not very prominent....*erratica* Bezzi.
Arista plumose, bullae prominent....10.
10.—Apical cell villous in female, not in males....11.
Apical cell not villous in female (♀ only)....*bulligera* Austen.
11.—Abdomen of male with the second segment white pilose basally....*bulligera* Austen.
Abdomen with yellowish pile on the second segment forming a broad band....12.
12.—Posterior tibiae with golden yellow pile on dorsal surface....13.
Posterior tibiae with black pile on the apical two-thirds of the upper surface; abdomen with pale yellowish or cinereous pile....*bezzii* Curran.
13.—Scutellum deep blackish, mostly clothed with short, black hair....*varians* Curran.
Scutellum reddish or brownish red, wholly clothed with tawny pile....*pubipennis* Bezzi.
14.—Posterior femora reddish on the basal half....15.
Posterior femora with at most the base reddish....16.
15.—Wings villous on the basal half; tibiae all with black hair on apical half; posterior femora reddish basally....*fucoides* Bezzi.
Wings wholly without villi; anterior four tibiae yellowish haired; femora sometimes wholly black; eyes of male broadly separated....See *Simoides*.
16.—Slopes of the posterior calli above the squamae black-haired....*natalensis* Macquart.
Slopes of the posterior calli above the squamae yellow-haired....*curta* Loew.

Phytomia incisa Wiedemann

Eristalis incisa Wiedemann, 1830, Ausser. Zweifl., II, p. 155.

Two males and one female, Johannesburg, January, March, 1899 (J. P. Cregoe); male and female, Basutoland (Janson); male, Kikuyu Escarpment, British East Africa; female, Malvern, 1900 and female, Howick, 1901 (J. P. Cregoe); male, Wagira, Gara Mulata, Abyssinia (G. Kristensen); female, Boswenda, Congo, October 22, 1914 (J. Bequaert).

Phytomia fronto Loew

Megaspis fronto Loew, 1858, Ofvers. Kongl. Vet. Akad. Forh., XIV, p. 381.

Two males, Mt. Ruwenzori, Congo, April 15, 1914 (J. Bequaert).

Phytomia erratica Bezzi

Megaspis erratica Bezzi, 1912, Ann. Mus. Civ. Genova, V, p. 424.

Two males and one female, Kasansera, Congo, July 17, 1914 (J. Bequaert).

Phytomia bulligera Austen

Megaspis bulligera Austen, 1909, Trans. Zool. Soc. Lond., XIX, p. 91.

Male and female, Lubutu, Congo, January 21, 1915 and February 6, 1915; female, Walikale, Congo, January 7, 1915 (J. Bequaert).

Phytomia pubipennis Bezzi

Bezzi, 1915, Syrph. Ethiopian Reg., p. 71.

Female, Banga, Liberia, October, 1926 (J. Bequaert).

Phytomia natalensis Macquart

Eristalis natalensis Macquart, 1849, Dipt. Exot., Suppl. 4, p. 134.

Female, Uele River, Congo (Rodhain); female, Irumu to Penge, Congo, March 3, 1914; female, Mombasa, April 24, 1927 (J. Bequaert); five males and one female, Ricatla, Delagoa Bay (Janson); two males and three females, Lourenco Marques, 1913, 1914 (H. A. Junod).

Several females and all the males differ from the typical form in having a narrow yellow prescutellar fascia and the orange fascia on the second abdominal segment narrower. At first sight these would appear to belong to *curta* Loew but the hair on the posterior calli is wholly black.

The fact that the males of *natalensis* always have a prescutellar pale fascia indicates the probability that many of the records of *curta* Loew actually refer to this species. In *curta* the outer part of the posterior calli are yellow haired and the pale abdominal fasciae are much wider.

Simoides Loew

This genus is similar to *Phytomia* Guerin but the eyes of the males are broadly separated, the front having almost parallel sides above.

Table of Species

1.—Posterior femora with very long, abundant pile in front; scutellum brown with yellow apex....*villipes* Loew.

Posterior femora with appressed pile in front; scutellum wholly yellowish.....
.....*pachymera* Wiedemann.

Simoides villipes Loew

Loew, 1857, Ofvers. Kongl. Vet. Akad. Forhandl., XIV, p. 382.

Blackish, mostly pale pilose; thorax mostly pale pollinose. Length, 13 mm.

Male.—Front with parallel sides above, the upper and lower sections divided by a rather deep furrow; brown pollinose, a large, pitted, shining area above the antennae; pile black, yellowish on the anterior third. Occiput brownish yellow pollinose, the orbits white on the lower half, the pile yellow. Cheeks black, very thinly pollinose. Face thickly grayish pollinose the large, prominent tubercle black; pile yellowish. Antennae brown; arista reddish, short plumose.

Thorax black, the pleura and sides of the mesonotum grayish pollinose, the mesonotum with a broad band of brownish yellow pollen in front of the scutellum and with very thin brown pollen in front; between the bases of the wings a broad, darker fascia; pile thick, yellowish, somewhat darker on the dorsum. Scutellum brown, the apex broadly yellowish; pile black, yellow on the free border.

Legs black, basal half of the anterior four tibiae and the broad base of the hind pair yellowish, the tarsi reddish brown. Pile pale yellowish, very long on the hind femora; black on the posterior tibiae and tarsi, dense and forming a crest on the apical half of the upper surface of the tibiae.

Wings hyaline, with brownish tinge and a weak median brown cloud in front. Squamae pale yellowish, the halteres reddish yellow.

Abdomen black, with brownish yellow pile on the dorsum, yellowish pile laterally and almost white pile basally; apices of the second and third segments with black pile, although the tip bears yellowish hairs, the fourth segment with black pile on the apical half in the middle. Genitalia black pilose, rather dull. Venter clothed with very long, pale pile.

One male, Addis Abbaba, Abyssinia, August 31, 1920 (Barnum Brown).

The male of this species has been unknown up to the present time although a fair number of females have been recorded. Bezzi placed the species in *Phytomia* Guerin and described a variety, *femoralis*, with the base of the posterior femora broadly reddish. It probably represents a distinct species, or may prove to be a female of *Mallota extrema* Loew. In the male there is scarcely a trace of reddish ground color on the face but this is probably variable.

Simoides pachymera Wiedemann

Eristalis pachymerus Wiedemann, 1819, Zool. Mag., I, p. 17.

Eristalis crassipes Fabricius, 1805, Syst. Antl., p. 237 (not *crassipes* Fabricius, 1805).

Eristalis crassipes Wiedemann, 1830, Ausser. Zweifl., II, p. 157.

Simoides crassipes Bezzi, 1916, Syrph. Ethiopian Reg., p. 76.

Two males and five females, Ricatla, Delagoa Bay, (Janson); male and two females, Lourenco Marques, January–July, 1914 (H. A. Junod); female, Magoye, N. Rhodesia, 3500 ft., August–October, 1926 (J. W. Moore).